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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/624,796

07/25/2000

Brig Barnum Elliott

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05/06/2004

VERIZON CORPORATE SERVICES GROUP INC.
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EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

6

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,796

Applicant(s)

ELLIOTT ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-38 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. **Claims 1-38** as amended are still in consideration for this application. Applicant has amended claims **33 and 34**.
2. Examiner **withdraws** the 112-second paragraph rejection(s) for Office action filed 11/18/03. Examiner thanks applicant for making the necessary corrections to clarify the recited claimed subject matter and thus withdraws the rejection.
3. Examiner **withdraws** the obviousness rejection to *Kubinszky* and *Kubinszky* in view of *Schult* for Office action filed 11/18/03. In addressing applicant's arguments in the response filed 02/17/04, examiner notes some of the claims do not contain the limitations at issue between the examiner and the applicant. In particular, although the *Kubinszky* reference lacks certain detail with respect to specific limitations, it may be clear from the figures that the generators and emulators are not co-located at a device. For example, see figure 1 where the traffic generators TG1 and TG2 are not co-located with the network simulator NS which appears to perform the emulation. Claims 14 and 24 do not further recited this relationship and as such the examiner maintains the rejection for these sets of claims. In addition, the examiner has further made this an anticipated rejection as the obviousness rejection made by the previous examiner may have been improper. In addition, the examiner has further withdrawn some of rejections to the dependent claims since it is the current examiner's view that these limitations are not anticipated by the *Kubinszky* reference. Finally, new rejections replace parts of the withdrawn rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. **Claims 14-15, 20-22, 24-25, and 30-32** are rejected under 35 U.S.C. 102(a) as being anticipated by “Emulation of Ad-Hoc Networks on IEEE 802.11” to *Kubinszky et al.*

(“*Kubinszky*”).

As to **claim 14**, *Kubinszky* discloses simulating routing protocols (see top of page 448) thus the protocols tested are routing protocols (e.g., AODV and DSR). The network simulator NS emulates each of the nodes, see e.g., figure 1. The network simulator further monitors the operation and analyzes the monitoring to determining protocol suitability, see e.g., top of page 448. The protocol configuration settings to be tested are inherent in the different routing protocols tested.

As to **claim 15**, see e.g., Abstract.

As to **claim 20**, see e.g., figures 5-10 with respect to data collected.

As to **claim 21**, see rejection to claim 14.

As to **claim 22**, see figure 4.

As to **claim 24**, see rejection to claim 14.

As to **claim 25**, see rejection to claim 15.

As to **claim 30**, see rejection to claim 20.

As to **claim 31**, see rejection to claim 21.

As to **claim 32**, see rejection to claim 22.

6. **Claims 1, 3, 6-8, 11-14, 17-21, 24, and 27-31** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,483,811 B1 to *Jabbarnezhad*.

As to **claim 1**, see figure 1 where a simulator controller and an analysis devices is a management station 18 and a node is a test site 16. In particular, *Jabbarnezhad* teaches emulating a distributed network over a localized network 12, see e.g., column 1, lines 56-65 and column 2, line 61. With respect to configuring and monitoring see e.g., column 4, lines 49-60. What is important to note is examiner assumes a reasonable but broad interpretation of “an emulator configured to simulate transmission characteristics of the network” (unlike the further recitation in claim 9). In particular, the node 60 shown in figure 1 contains a traffic generator 84 and a test device 80. Examiner notes the test devices 80 acts as an emulator, see e.g., column 4, lines 8-30. Specifically, “the test device 80 may be a router, a communications service unit, a data services unit, or other type of device designated for deployment in a network environment” column 4, lines 11-13. Thus the device furthermore simulates transmission characteristics by routing the traffic generated from the traffic generator.

As to **claim 3**, see e.g., column 4, lines 49-60 note order: configuring before testing.

As to **claim 6**, see e.g., column 4, lines 49-60 note order: configuring before testing.

As to **claim 7**, see e.g., column 4, lines 49-60 note order: configuring before testing.

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As to **claim 8**, see e.g., column 4, lines 49-60.

As to **claim 11**, see e.g., column 4, lines 49-60.

As to **claim 12**, see network 12 in figure 1.

As to **claim 13**, see similar rejection to claim 1.

As to **claim 14**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 6.

As to **claim 18**, see similar rejection to claim 8.

As to **claim 19**, see similar rejection to claim 7.

As to **claim 20**, see e.g., column 4, lines 49-60.

As to **claim 21**, see similar rejection to claim 7.

As to **claim 24**, see similar rejection to claim 14.

As to **claim 27**, see similar rejection to claim 17.

As to **claim 28**, see similar rejection to claim 18.

As to **claim 29**, see similar rejection to claim 19.

As to **claim 30**, see similar rejection to claim 20.

As to **claim 31**, see similar rejection to claim 21.

7. **Claims 1, 3, 6-14, 17-24, 26 and 27-33** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,889,954A to *Gessel et al.* ("*Gessel*").

As to **claim 1**, see figure 1 where a simulator controller is multiple emulator signal handler (MESH) 11, a node is a emulator 12-16, and an analysis device is either multiple emulator signal handler (MESH) 11 or PSBM monitor 36. In particular, *Gessel*

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teaches a designer 25 that configures a node a supervisor 26 that tests the nodes, see e.g., column 7, line 50 – column 8, line 46.

As to **claim 3**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 6**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 7**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 8**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 9**, see e.g., column 2, lines 13-28.

As to **claim 10**, column 6, lines 53-54.

As to **claim 11**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 12**, see figure 1.

As to **claim 13**, see similar rejection to claim 1.

As to **claim 14**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 6.

As to **claim 18**, see similar rejection to claim 8.

As to **claim 19**, see similar rejection to claim 7.

As to **claim 20**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 21**, see e.g., Abstract and column 7, line 50 – column 8, line 46.

As to **claim 22**, see e.g., column 8, lines 16-40.

As to **claim 23**, see e.g., column 8, lines 16-45. Faster than real-time is reading the file generated.

As to **claim 24**, see similar rejection to claim 14.

As to **claim 26**, see similar rejection to claim 16.

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As to **claim 27**, see similar rejection to claim 17.

As to **claim 28**, see similar rejection to claim 18.

As to **claim 29**, see similar rejection to claim 19.

As to **claim 30**, see similar rejection to claim 20.

As to **claim 31**, see similar rejection to claim 21.

As to **claim 32**, see similar rejection to claim 22.

As to **claim 33**, see similar rejection to claim 23.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. **Claims 16, 17, 19, 26, 27, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over “Emulation of Ad-Hoc Networks on IEEE 802.11” to *Kubinszky et al.* (“*Kubinszky*”) in view of “Routing in Mobile Ad Hoc Networks” to *Schult et al.* (“*Schult*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*

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- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 16**, for step (a) *Kubinszky* discloses see e.g., figures 1 and 3 where the scenario outlines the configuration of the nodes to be tested. In order to perform the testing, the nodes must be pre-configured by the simulator (i.e., prior to simulating).

For step (b) *Kubinszky* is silent or deficient to the further limitation the test scenario including at least one of terrain, trajectory set, and traffic control model information. In particular, examiner notes this may be inherently taught as part of figures 1 and 3; however, examiner also notes the following obviousness rejection below as well.

Schult teaches the further recited limitation above at e.g., at page 11.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Kubinszky* to further clarify that this information is used to build the models.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation the test

scenario including at least one of terrain, trajectory set, and traffic control model information. In particular, the motivation for modifying the reference or to combine the reference teachings would be the evaluation of routing protocols in tactical conditions. In particular, *Schult* cures the above-cited deficiency by providing a motivation found at e.g., top left-hand column at page 11. Second, there would be a reasonable expectation of success since both papers disclose modeling ad hoc networks. Thus the references either in singular or in combination teach the above claim limitation.

As to **claims 17**, in addition to the rejection to claim 16 see e.g., figures 1 and 3 where the scenario outlines the configuration of the nodes to be tested. In order to perform the testing, the nodes must be pre-configured by the simulator (i.e., prior to simulating).

As to **claim 19**, examiner assumes a reasonable but broad interpretation of characteristic matrix, as such see claims 16 and/or 17. See also top-left column of page 11.

As to **claim 26 and 27**, see rejection to claims 16 and 17 respectively.

As to **claim 29**, see rejection for claim 19.

10. **Claims 2, 15, 25 and 34-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,483,811 B1 to *Jabbarnezhad* in view of “Routing in Mobile Ad Hoc Networks” to *Schult et al.* (“*Schult*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

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- e) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- f) *the difference of differences in the claim(s) over the applied cited references;*
- g) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- h) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 2**, for step (a) *Jabbarnezhad* discloses the limitations recited in the base claims.

For step (b) *Jabbarnezhad* is silent or deficient to the further limitation wherein the network is and ad hoc (*wireless*) network and each of the plurality of devices is an ad hoc network device.

Schult teaches the further recited limitation above at e.g., at page 11.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Jabbarnezhad* to further test an ad hoc network as part of a distributed network.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation wherein the network is and ad hoc network and each of the plurality of devices is an ad hoc network device. In particular, the motivation for modifying the reference or to combine

the reference teachings would be that *Schult* teaches that an ad hoc network is dynamically changing and *Jabbarnezhad* teaches a dynamically changing network as part of the emulated network 12. Second, there would be a reasonable expectation of success since the network 12 taught by *Schult* is emulated. *Jabbarnezhad* further teaches that the test devices can be any device, see e.g., column 4, lines 12-14. Thus the references either in singular or in combination teach the above claim limitation.

As to **claim 15**, see rejection for claim 2.

As to **claim 25**, see rejection for claim 2.

As to **claim 34**, see similar rejection to claim 2.

As to **claim 35**, see similar rejection to claim 11.

As to **claim 36**, see similar rejection to claim 14 or 24.

As to **claim 37**, see similar rejection to claim 7.

As to **claim 38**, see similar rejection to claim 8.

11. **Claims 2, 15, 25 and 34-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,889,954A to *Gessel et al.* ("*Gessel*") in view of "Routing in Mobile Ad Hoc Networks" to *Schult et al.* ("*Schult*").

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- i) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- j) *the difference of differences in the claim(s) over the applied cited references;*
- k) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- l) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 2**, for step (a) *Gessel* discloses the limitations recited in the base claims.

For step (b) *Gessel* is silent or deficient to the further limitation wherein the network is and ad hoc (*wireless*) network and each of the plurality of devices is an ad hoc network device.

Schult teaches the further recited limitation above at e.g., at page 11.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Gessel* to further test an ad hoc network as part of a distributed network.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation wherein the network is and ad hoc network and each of the plurality of devices is an ad hoc network device. In particular, the motivation for modifying the reference or to combine the reference teachings would be that *Schult* teaches that an ad hoc network is dynamically changing and *Gessel* teaches a dynamically changing network that could be wireless. Second, there would be a reasonable expectation of success since the network

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taught by *Schult* is emulated. Thus the references either in singular or in combination teach the above claim limitation.

As to **claim 15**, see rejection for claim 2.

As to **claim 25**, see rejection for claim 2.

As to **claim 34**, see similar rejection to claim 2.

As to **claim 35**, see similar rejection to claim 11.

As to **claim 36**, see similar rejection to claim 14 or 24.

As to **claim 37**, see similar rejection to claim 7.

As to **claim 38**, see similar rejection to claim 8.

Allowable Subject Matter

12. **Claims 4 and 5** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US006295518B1 anticipates some of the independent claims, see figure 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

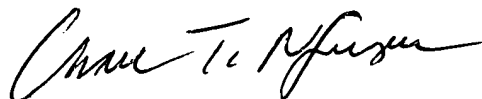
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663


DWF



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600